DOCUMENT RESUME

ED 269 206 RC 015 712

AUTHOR West, Patrick C.; And Others
TITLE Rural Economic Development Consequences of the Population Turnaround in Northern Lower Michigan.
INSTITUTION Michigan Univ., Ann Arbor. School of Natural Resources.
PUB DATE Aug 85
NOTE 38p.; Paper presented at the Annual Meeting of the Rural Sociological Society (48th, Blacksburg, VA, August 21-24, 1985). Supported by a grant from the McIntire-Stennis Forestry Research Program.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Census Figures; *Economic Factors; Economic Research; *Employment Patterns; *Hypothesis Testing; Migration Patterns; Models; Population Trends; *Rural Development; Rural Population; Socioeconomic Influences; Unemployment; *Urban to Rural Migration
IDENTIFIERS *Economic Impact; *Michigan

ABSTRACT

Consequences of population turnaround for rural economic development are examined in a 9-county region of Northern Lower Michigan. Data from census reports and 374 usable responses to a questionnaire mailed to a random sample of property owners drawn from 1982 county tax assessment rolls were used to test competing hypotheses about rural development consequences: economic infusion (or positive economic impact); economic overload (or negative impact on unemployment and increased competition for jobs); and a contingent eclectic model in which the balance of positive/negative impacts differ depending on the socioeconomic composition of the reverse migration stream and the receiving region. Data indicated that population growth in the region was associated with substantial increases in unemployment compared with the statewide average. Findings supported elements of all hypotheses. The major finding that blue collar persons (both newcomers and long-term residents) experienced higher unemployment rates than white collar persons provided greatest support for the contingent eclectic model. To the extent that retirees (44% of sample) stimulated demand for goods and services, without increasing competition in labor markets, partial support was found for the economic infusion theory. For white collar strata, economic infusion was supported; for blue collar strata, economic overload theory was supported. References and tables are appended. (Author/NEC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED269206

RURAL ECONOMIC DEVELOPMENT CONSEQUENCES OF THE POPULATION TURNAROUND IN NORTHERN LOWER MICHIGAN*

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Patrick C. West
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Patrick C. West

Dale Blahna

and

Mark Fly

University of Michigan
School of Natural Resources
Ann Arbor, MI

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☑ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Paper presented at the Annual Meeting of the Rural Sociological Society (48th, Blacksburg, VA, August 21-24, 1985).

* This study was funded by a grant from the McIntire-Stennis forestry research program. The authors are Associate Professor and Ph.D. candidates respectively.

RC015712

RURAL ECONOMIC DEVELOPMENT CONSEQUENCES OF THE POPULATION TURNAROUND IN NORTHERN LOWER MICHIGAN

Abstract

The consequences of the population turnaround for rural economic development are examined in a nine county region in Northern Lower Michigan. Data from census reports and a mailed questionnaire were used to test competing hypotheses about rural development consequences: (1) economic infusion (or positive economic impact); (2) economic overload (or negative impact on unemployment and increased competition for jobs); and (3) a contingent eclectic model in which the balance of positive and negative impacts differ depending on the socio-economic composition of the reverse migration stream and the receiving region. The major finding was that blue collar persons (both newcomers and long-term residents) experienced much higher unemployment rates than white collar persons. Thus the contingent eclectic model received the greatest support. In other words, for white collar strata economic infusion is supported; for blue collar strata economic overload theory is supported.

Key Words: Reverse Migration, Population Turnaround, Rural Development, Economic Infusion, Economic Overload.

RURAL ECONOMIC DEVELOPMENT CONSEQUENCES OF THE POPULATION TURNAROUND IN NORTHERN LOWER MICHIGAN

Whatever other consequences the population turnaround may have, it has most certainly established the "turnaround" research literature as a growth industry. Most of this research has focused on the patterns and causes of the population turnaround. However, an increasing number of researchers are stressing the equal importance of understanding the consequences of reverse migration (e.g. White, 1983; Dailey and Campbell, 1980; Zuiches and Price, 1980; Clawson, 1976; Ploch, 1978; Price and Clay, 1980; Wardwell 1977: 176). In this paper the consequences of the population turnaround for rural economic development are examined in a nine county region in Northern Lower Michigan (See Figure 1 below).

Although the causes of the turnaround migration are rooted largely in non economic quality of life motives (eg. Swanson, 1984; Brown and Wardwell, 1980; Dillman, 1979; Sidney, 1976, Beale, 1975; Campbell et.al., 1976; McCarthy and Morrison, 1979; Campbell and Swearingen, 1983; Voss and Fuguitt, 1979; Price and Clay, 1980; Solfranko and Williams, 1980; Wellman and Marans, undated), one of the most important categories of consequences are economic impacts with strong implications for rural economic development. As White (1983: 488) observes, "The important question to be answered is whether or not the influx of migrants will result in an improved economic infrastructure." Similarly, Wardwell and Gilchrist (1980: 146) emphasize that for those who remain in the labor market:

> growth of nonmetropolitan employment is a necessary condition to permit many migrants to implement their preferences to live in smaller, more removed places. This condition is particularly important for the growth of nonmetropolitan counties which are not

adjacent to a Standard Metropolitan Statistical Area (SMSA) because the opportunities to commute to employment in metropolitan centers are fewer in these more remote counties.

Perhaps the most fundamental question of economic impact, therefore, is whether reverse migration stimulates growth in labor markets, or whether demand for jobs increases without a corresponding growth in supply, causing increased unemployment and competition for jobs. A derivative question is how the economic costs and benefits of reverse migration are distributed among newcomers and long-term residents, and among different social and economic strata.

The literature on economic consequences of the population turnaround tends to argue for one of two hypotheses which we will call "economic infusion" and "economic overload". While most researchers acknowledge some mixture of both economic infusion and overload, they tend to argue that one or the other of these envisioned impacts is the predominant consequence. Theories and data pertaining to "economic infusion" are considered first.

Economic Infusion

Economic infusion theories postulate that the economic consequences of reverse migration are predominantly positive. Population growth is seen as causing an increase in demand for goods and services leading to an increase in jobs and economic development. Other positive consequences are seen in terms of "enriching" receiving communities. For instance, Clawson (1976: 965) argues that "all migrations involve income and wealth transfers to some extent; migrants bring not only material possessions but also education, skills, and other personal qualities that often enrich the receiving area." These optimistic images of harmonious economic growth found in academic research

papers are often mirrored by local journalistic media bound to the dictates of small town "boosterism" (e.g. Davis, 1976).

Infusion theories pay particular attention to migrants who bring with them a demand for services which stimulate economic demand, but who do not participate in labor markets. Retirees are the single most important category of this type of migrant (eg. Howie, 1983: 2; Zuiches and Price, 1980; Price and Clay, 1980; Morrison and McCarthy, 1982; Schwarzweller, 1979). Price and Clay (1980: 605), for instance, argue that:

> Instead of cramping local job opportunities, the influx of retirees into rural communities, which is often the case in Michigan, may encourage employment growth by providing a ready market for certain goods and services. Recent migratory patterns, therefore, may be actually stimulating economic development in many rural areas, subsequently attracting even more migration.

Housewives, children, and, to a lesser extent, counter culture 'drop outs' (eg. Hackett and Schwartz, 1980) also provide a stimulation of local consumer demand without a corresponding strain on local labor markets (Morrison and McCarthy, 1982).

Infusion theory, however, also views those migrants who are in the labor market as having a largely positive impact on rural economic development (Ploch, 1978: 297-298; Morrison and McCarthy, 1982: 14; Dailey and Campbell, 1980: 256-258; Zuiches and Price, 1980; Briggs, 1981: 361; Price and Clay, 1980). Morrison and McCarthy (1982: 14), for instance, argue that:

> Whether people follow jobs or, by their presence, generate new ones, these changes stimulate a mutually reinforcing cycle of growth. New jobs help communities to keep their existing residents and attract newcomers. The population becomes larger and more affluent.

Migrants are seen as having higher education, and urban skills that stimulate growth, especially in the tertiary sector. They provide services that are in short supply and provide entrepreneurship in small business. "In very few cases are they directly competitive with an established business" (Ploch, 1978: 298).

Data presented by Price and Clay (1980: 603) suggest that when relationships between rapid growth and perceptions of employment market impacts are controlled for confounding factors that "migration may not be putting pressure on the local employment market after all." Solfranko (1980: 145) found that neither amenity movers nor migrants whose primary motivation was to find a job have had any "undue difficulty finding work."

Other empirical tests of infusion theory have generally found that employment growth is largely in the tertiary sector (Zuiches and Price, 1980: 354; Daily and Campbell, 1980; Poindexter and Clifford, 1983: 433; Carpenter, 1977: 366). Zuiches and Price (1980: 354) found that about 70% of growth in employment opportunities was in the tertiary sector in nonmetropolitan areas.

Daily and Campbell (1980: 258) do acknowledge that, to the extent that this service sector growth relies on tourism, it is sensitive to seasonal downturns, recession, and gas shortages that make it an unstable basis for rural development. However, for the most part, infusion theory sees the economic development 'glass' as at least 'half full'. Economic overload theory, on the other hand, sees the 'glass' as at least 'half empty'.

Economic Overload

The economic overload hypothesis is part of a wider "institutional overload" thesis. "Problems of institutional overload may arise as the influx of new residents cramps the local employment picture and places demands in excess of the carrying capacity of community services" (Price and Clay, 1980:

593). Labor market overload from in migration is seen as contributing to unemployment among both long term-residents and newcomers. Overload theory posits that while some in migration comes from those not in the labor market, "by far the majority of recent in migrants to nonmetropolitan areas remain active in the labor force" (Wardwell and Rowe, 1983: 2). Other empirical data suggest that unemployment may be higher among newcomers than among long-term residents (Voss and Fuguitt, 1979: 76). Generally, the pressures on labor market competition are not relieved by a re-migration of newcomers out of the area. Wardwell and Rowe (1983: 8) found that "indicators of dissatisfaction induced by negative economic experiences [after the move] do not appear to extend to a heightened intention to move back to the point of origin, regardless of the motivational basis of the move."

Both infusion and overload theorists present data showing that newcomers usually are younger and have higher educations than long term residents, but they differ in their interpretation of these findings. As noted above, infusion theory views this as enhancing human resource capabilities conducive to rural development. Overload theory, on the other hand, views these characteristics in terms of giving newcomers a competitive edge in competition for jobs, hence tending to displace or block long-term residents from new job opportunities that may arise (Wellman and Marans, undated: 3; DeJong and Humphrey, 1976: 531; Price and Clay, 1980: 594). For instance, Wellman and Marans (undated: 3) argue that:

> to the extent that metropolitan to non-metropolitan migrants are younger and of higher socio-economic status than the rural population they are joining, we can expect competition for jobs, [and] alterations of the stratification systems...

In other words, overload theory asks the question 'rural development for who?', and posits that, to the extent that population increase causes rural economic development opportunities, they tend to be monopolized by newcomers.

Recent research on longitudinal trends in migration stream composition using nationwide data (Lichter et al., 1979: 645) found that the reverse migration stream since 1970 has "become less selective of the young and high SES groups." To the extent this trend may continue, both the positive "YUPPIE' effects posited by infusion theory and the negative "YUPPIE" effects posited by overload theory would tend to diminish over time. However, an increase in lower status, blue collar migrants may create negative economic impact in another sense as competition for blue collar jobs increases in regions where most of the induced labor market growth is in the white collar-service sector.

Others have observed that while, in the aggregate, economic growth may be increasing average incomes, there is no corresponding reduction in unemployment and poverty (Goldstein, 1976; Seninger and Smeeding, 1981). In other words, those that most need access to rural economic development are blocked from enjoying its fruits, due in part perhaps, to displacement by newcomers. As Seninger and Smeeding (1981: 384) observe:

> The recent migration from metro to nonmetro areas has, so far, had little effect on the broad typology of rural poverty in the United States... The poverty rate in rural America is still more than 20 percent higher than in central city areas.

A Contingent Eclectic Model

Most researchers recognize that the economic consequences of the population turnaround can have a mixture of positive and negative impacts on rural economic development. However, they tend to argue that one or the other is the predominant consequence and that the mix of positive and negative impacts

are rather invariant. For instance, Daily and Campbell (1980: 248) acknowledge that "rapid population increase carries with it both positive and negative consequences," however, they view economic consequences as largely positive. A contingent eclectic model would posit that the mix of positive and negative impacts can and does vary depending on the composition of the migration stream and the social characteristics of the receiving communities. For instance, in comparing "amenity movers" with "job seeking movers" Solfranko (1980: 150) posits one form of a contingent thesis:

> Areas which may attract one type of migrant rather than the other might be affected differently in so far as the motivation for moving tends to select different types of individuals..

A contingent eclectic model sensitizes us to look for differences in consequences among different regions and among different socio-economic strata. Regional differences are not directly measured in this study, but study results from the nine county study region are compared on selected dimensions with results from other regional studies. Differences by economic strata are examined. Because prior studies have indicated that most of the growth in jobs associated with reverse migration are in the service sector (Zuiches and Price, 1980: 354; Daily and Campbell, 1980; Poindexter and Clifford, 1983: 433; Carpenter, 1977: 366) it is hypothesized that white collar respondents (both newcomers and long-term residents) will experience less job competition and unemployment related to population growth than blue collar respondents.

Data and Method

Selection of the Study Region

In this study, empirical tests of the infusion, overload, and contingent models of economic impacts of reverse migration are conducted using both

census and social survey data for a nine county region in Northern Lower Michigan (shown in Figure 1). A comparison of census figures in Michigan from 1970 to 1980 revealed heavy population growth in the central region of the Northern Lower Peninsula of Michigan. Ten contiguous counties in this region had population growth rates of 38 to 104% during the last decade. One of these (Grand Traverse County) was eliminated from the study region because of its relatively large urban population. Changes in population for the nine remaining counties are shown in Table 1 (see results section).

Insert Figure 1 About Here

The economic consequences of reverse migration in this nine county region were examined using two types of data: (1) census data on changes in population and unemployment, and (2) a mailed questionnaire survey that included measures of selected socio-economic characteristics (occupation, education, income, age and employment status) for newcomers and long-term residents. Operational definitions of census variables, and the sampling and measurement procedures used in the questionnaire survey are discussed below.

Census Data

Census data on population and unemployment by county for 1970 and 1980 were drawn from the U.S. Bureau of Census Reports for the State of Michigan (1970, 1980). The change in population and unemployment rate for the nine counties in the study region were compared with state average changes in these variables. Unemployment was operationally defined in these reports as:

$$\% \text{ Unemployed} = \frac{\text{\# Not Reporting Place of Work}}{\text{Total Work Force}} \times 100$$

Survey Sample

A stratified random sample of individual property owners was drawn from the 1982 tax assessment rolls for each county. Tax rolls were used for sample selection for three reasons. First, it was a readily available enumeration of the desired population parameters since most adult residents in the area own property.[1] Second, a sample of all property owners including absentee owners was needed for other aspects of the broader research project dealing with natural resource management implications of reverse migration (required by the funding source for this research). Third, relying on other readily available population enumeration sources would have created equal or greater biases. For instance, using telephone directories for the sampling frame would omit residents without telephone or with unlisted telephone numbers, and overlapping boundaries of local directories would result in over sampling certain areas. Given the purposes of the study, this sampling frame offered the best available estimate of the population of adult residents in the study region. The sample does contain a small bias against renters, which may slightly under represent lower income persons in the sample.

A two-phase sample stratification was utilized to ensure a representative sample from each of the municipal units (counties and townships) in the region. First, a sampling goal was set up for each county, based on the number of individual, non-commercial property owners relative to the total population of the study region. This was further stratified by local municipal units within each county. Starting at a randomly selected point every 20th individual was selected until the municipal unit goal was reached. Persons listed more than once were counted only once to reduce bias due to multiple ownerships. Absentee owners were then separated out from the full sample to be used for other purposes (Blahna, forthcoming). There were 847 resident property owners in the resident sub-sample. There were 28 deletions

from this sample list (four due to multiple listings; 24 because P.O. Boxes were from counties surrounding the study region) leaving a sample of 819 residents.

Data Collection and Return Rate

A mailed survey was used to gather data using a standard four wave technique (survey, post card, survey, post card). A map was included with the surveys to familiarize respondents with the boundaries of the study region (see Figure 1). Of the 819 in the resident sample 705 had deliverable mailing addresses. Of the 705 there were 379 returns (53.8%), of which 374 were usable (53.0%). While the response rate was lower than we hoped, it was well within the range that Oppenheim (1966) calls for in mail surveys (40% to 60%).

A comparison of the resident results with 1980 U.S. Census figures was conducted to determine if there were any systematic biases in the final sample. A number of socio-economic categories were somewhat underrepresented including: younger persons (18-34), lower income persons (under $10,000), and low education (less than high school). These discrepancies are due to a combination of factors: (1) temporal differences between county characteristics in 1980 census data and the survey data gathered in 1983; systematic biases due to the property owners sampling frame, and (3) selective non-return bias. Because there were very few renters in the study region counties, selective non-return probably accounts for the bulk of the systematic biases in the survey returns. Generalization of study results needs to be seen in the context of these biases in representativeness.

Survey Design and Operationalization of Survey Variables

Draft survey items were reviewed by a panel of expert researchers and graduate students for clarity of wording, sound question design, and face

validity. Revised questions were pretested on a group of 25 residents from the study region, and revised again based on pretest results. The final questionnaire was eight pages long. Mailings were done during the summer and fall of 1983.

In many studies of the population turnaround the distinction between "newcomers" and "long-term residents" is arbitrary and sometimes unstated. In this study two criteria were triangulated to determine the cut point: (a) the period when population growth began to accelerate rapidly, and (b) when primary motives for migration shifted from traditional economic motives to more "quality of life motives." Using these criteria the year 1965 was selected as the cut point. Persons who migrated to the study region in 1965 or later are defined as "newcomers"; others are treated as "long-term residents."

Aggregate structural variables in the survey included employment status, and standard socio-economic status indicators including age, education, income, and occupational status. For some analyses the occupation variable categories were collapsed to a blue collar/white collar-service dichotomized variable. The blue collar category includes "laborer", "operative","craftsman-foreman", and "farmer". The white collar-service category includes "professional-technical", "manager-official", "clerical", "sales", and "service".

Employment status was measured by the question "What is the employment situation of the principal wage earner in your household?" Response categories were "Employed: work for someone else", "Self employed" , "Unemployed", "Retired", "Homemaker", "Student". The unemployment rate calculated from survey responses was the percent of respondents who checked "unemployed". This differs from the Bureau of Census definition in several ways (See above, p.8). First, it is self reported unemployment which may in some cases be different than not reporting place of work. Second, the percent unemployed is

a percent of all respondents, not just the percent of those in the labor market. The percent of all respondents was used in calculating the unemployment rate from survey data because the main purpose of the study is to investigate the economic impact of reverse migration on the region's entire population not just on those in the labor market. Thus, the unemployment impacts of reverse migration in the survey data were calculated in relation to the full sample for the purposes of this study.

Results

Results of the Census analysis for the nine county region are shown in Table 1. Population growth from 1970 to 1980 increased in all nine counties and ranged from a 38% to 104% increase in population in comparison to a 4% increase for the state of Michigan as a whole. During the same period unemployment in the nine counties increased in all counties ranging from a 3.5% increase in Ostego County to a 23.5% increase in Montmorency County. The unweighted average increase was 15.5% compared to a 4.8% for the state as a whole. Although Ostego county's increase in unemployment between 1970 and 1980 was lower than the state average, it already had the highest unemployment rate of all the counties in 1970 (16.1%). Compared to the state-wide average, population growth due primarily to reverse migration was associated with rather large increases in the unemployment rate. This represents preliminary tentative support for the economic overload thesis. However, the relationship between these aggregate indicators for such a small number of cases must, of course, be interpreted with great caution. In particular, these data do not show what proportion of the unemployed individuals are newcomers or long-term residents, or what social strata are experiencing high unemployment.

Insert Table 1 About Here

Structural indicators in the survey data can address these and related questions more directly. Differences between newcomers and long-term reisidents in standard socio-economic variables are shown in Table 2. Because the relationships in most cases were non linear, X^2 was used as the main statistical test. Surprisingly, differences in age, income, occupation, and educational status between newcomers and long-term residents are not statistically significant.

Insert Table 2 About Here

The composition of the migration stream is strikingly similar to the social characteristics of the receiving region. These findings stand in contrast to most other studies that have generally found that newcomers are younger, and more highly educated than long-term residents. These contrasts may not be contradictory findings, but rather just indicative of contingent regional differences. What may have been true for other regions is not true for this region.

Even the adjacent region of counties bordering Lake Michigan exhibit strikingly different patterns of migration in which younger, higher education and income migrants are found (Wellman and Marans, undated: 3) and where land values are significantly higher thus tending to price lower income blue collar migrants out of the market. Thus, even findings about socio-economic characteristics from the same general area need to be regionally specified, and may

vary depending on the types of migrants a region attracts, and the nature of the receiving region's population and economy.

To the extent that migrants are similar to long term residents in a given region, both positive effects on rural economic development posited by infusion theory, and negative effects posited by overload theory are lessened and may cancel each other out. However, in comparing these contrasing findings with other regional studies, we do find a form of support for a contingent eclectic model.

By examining the detailed tabular distribution for occupation (Table 3) we also observe that both the reverse migration stream and the receiving region have a rather strong balance between white collar professionals and managers and more blue collar occupations, especially more skilled craftsmen-foremen and operatives. The large skilled blue collar component of the migration stream may be due, in part, to the fact that Northern Lower Michigan has been a major vacation region for the relatively well paid blue collar populations associated with the auto and related industries in Southeast Michigan (DeLind, 1978). As Fly (forthcoming) has shown, metro to nonmetro migration to the study region has very often been preceded and stimulated by vacationing in the study region. These differences in the composition of the migrant stream have major implications for rural economic development consequences in the study region.

Insert Table 3 About Here

In Table 2 it can also be seen that the differences in employment status between newcomers and longterm residents are statistically significant. The more detailed tabular data with respect to differences in employment status is

shown in Table 4. It can be seen in this table that newcomers have a higher proportion of retirees that are no longer in the labor market (44.3% of newcomers compared to 29.5% for long term residents). These data provide support for infusion theory insofar as the growth in retirees stimulates employment opportunities in the white collar-service sector of the economy.

Insert Table 4 About Here

Table 4 also shows that newcomers have a higher rate of unemployment (9.4%) compared to longterm residents (3.8%). This may be due, in part, to the fact that a subset of more recent migrants may have recently arrived and have not yet found work as Voss and Fuguitt (1979) found. Also, informal social bonds in tight knit rural communities may provide a competitive advantage to long-term residents in competition with "outsiders" for available jobs.

In combination with these factors, it could also be due, in part, to the more blue collar composition of the migrant stream in the study region in relation to employment growth concentrated in white collar-service occupations. This may help explain the differences between our results and the findings of other studies that have tended to show that necomers have had relatively little difficulty in finding employment (e.g. Dejong and Humphrey, 1976: 331; Wardwell and Rowe, 1983: 2; Solfranko, 1980: 145), perhaps because the predominantly white collar migrants in these studies tended to match the growing job opportunites in the tertiary sector.

The relationship between occupation and employment status for the full sample (both newcomers and long-term residents combined) is shown in Table 5. Unemployment rates in white collar-service occupations (professional-techni-

cal, manager-official, clerical, and service) are much lower than they are for blue collar occupations (craftsman-foreman, operative, and laborer).

Insert Table 5 About Here

To examine differences in this relationship for newcomers and long-term residents, a four fold interaction typology was formed by examining unemployment rates for newcomers and long-term residents within categories of blue collar and white collar-service occupations. The unemployment rates within this typology are shown in Figure 2. From this graph it can be seen that blue collar newcomers have a higher unemployment rate than blue collar long-term residents, and white collar newcomers have slightly higher unemployment rates than white collar long-term residents. However, the main finding that stands out is that both newcomer and long-term resident blue collar strata have much higher unemployment rates than either white collar strata.

Insert Figure 2 About Here

The statistical significance of this relationship was examined using X^2 because the fourfold typology variable is a nominal scale. By dichotomizing each separate variable a multiple regression was also run with a test for interaction. While statistical interaction was not significant (R^2 [main effects] = .05; R^2 [with interaction] = .05), the combined main effects using either X^2, or the additive liner regression method were statistically significant (X^2= 17.06, df=3, $P < .01$; R= .23, R^2= .05, $P < .001$).

Because interaction was not statistically significant partial correlations were examined. The bivariate correlation (r) between occupational status and employment status was .21. Controlling this relationship for residence status (longterm residents/ newcomers), the partial correlation was .20 and was statistically significant ($F = 14.7$, $P < .01$). The bivariate relationship between residence status and employment status was .08 and the partial correlation controlling for employment status was .07 ($F = 2.1$, NS). These data suggest that both factors contribute independently to the relationship with employment status, and that occupational status (white collar/ blue collar) has a much stronger independent effect on unemployment than does residency status (newcomer/long-term resident). Thus the differential economic impacts of reverse migration on different occuapional strata (for both newcomers and long-term residents) are more important than the small differential consequences for newcomers and long-term residents.

These findings provide support for the hypothesis derived from the contingent eclectic model which posited that because employment growth is primarily in the tertiary sector in reverse migration regions, "white collar residents (both newcomers and long-term residents) will experience less job competition and unemployment related to population growth than blue collar residents." Another way of stating this contingent model finding is that <u>for white collar-service strata (both newcomers and long-term residents) economic infusion theory is supported; while for both blue collar strata economic overload theory is supported</u>.

To the extent that blue collar persons form a significant proportion of a reverse migration stream in regions where job growth is primarily in the tertiary sector of the economy, we can expect this contingency model (of positive impacts on some strata, and negative impacts on other strata) to provide a better explanation of economic impacts than either the infusion or

overload hypotheses alone. A study by Bowles (1978: 17), based on a representative nationwide sample, found that two-fifths of employed white male metro-to-nonmetro migrants were in blue collar occupations. Thus, the phenomenon of blue collar reverse migration into regions in which the majority of employment growth is in the white collar-service tertiary sector is probably not uncommon, and hence the contingent eclectic model may be relevant in assessing the economic impacts of reverse migration in other regions.

To the extent that persons in blue collar strata are both able and willing to seek mobility into white collar-service occupations, the negative impact of reverse migration on blue collar strata may be lessened. Occupational mobility was not measured in this study. We do have some evidence of this for newcomers from a companion study conducted in the study region on a different but comparable sample (Fly, forthcoming).[2] In this study, Fly (forthcoming, draft chapter 9, p.6) found that:

> The self employed newcomers changed their occupational status significantly after the move to the study region. Before the move 63.7% were engaged in white collar occupations and 29.2% in blue collar occupations. After the move, 93.2% were engaged in white collar occupations. For newcomers that were employees [working for others] there was a tendency to move from blue-collar to service oriented occupations.

We can speculate that some blue collar long-term residents have probably also experienced a degree of mobility into the growing tertiary sector. Future research on the economic consequences of the population turnaround should examine this likelihood. Nevertheless, it is clear in figure 2 that a significant proportion of both blue collar newcomers and blue collar long-term resi-

dents have been unwilling and/or unable to take advantage of opportunities in the expanding tertiary sector.

This may be due to a number of factors including: (1) a lack of capital to initiate self employment in the tertiary sector; (2) a lack of both cognitive and social skills needed in service sector work that puts working class persons at a competitive disadvantage with young, more highly educated migrants from urban areas, and (3) perhaps also a set of status group barriers that both restrict entry into higher status group circles, and inhibit exit (and even desire to exit) from close knit blue collar status group communities.

Summary and Implications

In this paper the impact of reverse migration on rural economic development was examined in a nine county region in Northern Lower Michigan. Data from census reports and a mailed questionnaire was used to test competing hypotheses about rural development consequences: (1) economic infusion (or positive economic impact); (2) economic overload (or negative impact on unemployment and increased competition for jobs); and (3) a contingent eclectic model in which the balance of positive and negative impacts differ depending on the socio-economic composition of the reverse migration stream and the receiving region.

Census data from the nine counties indicate that population growth in the region is associated with substantial increases in unemployment compared with the state wide average. These data provided partial tentative support for the economic overload hypothesis.

The survey data provided support for elements of all three hypotheses. As other studies have found, a large number of persons in the migration stream are retired (44% in this study). To the extent that retirees stimulate the demand for goods and service, without increasing competition in labor markets,

partial support is found for economic infusion theory. Newcomers in this study had a slightly higher unemployment rate than long-term residents.

In contrast to most other studies, no statistically significant differences between newcomers and long-term residents were found for education, occupation, income, or age. Both the positive impacts of younger, more highly educated migrants posited by infusion theory and negative impacts posited by overload theory are not supported for this region. To the extent that findings from this region differ from findings from other regions they represent a form of support for a contingent eclectic model.

In the full sample (combining both long-term residents and newcomers) unemployment rates are much lower for white collar-service occupations than for blue collar manual occupations. In an examination of this relationship within categories of newcomers and longterm residents we found that unemployment was higher for blue collar workers among both migrants and longterm residents. This finding provided support for a contingent hypothesis that white collar residents will experience less job competition and unemployment than blue collar residents. For white collar strata economic infusion is supported; for blue collar strata economic overload theory is supported.

There are a number of implications of these findings for further research. The results from this study region provide a different picture than the findings of most other studies. This cautions us to avoid overgeneralizing the results from any particular region, and sensitizes us to the importance of comparative regional research that seeks to identify the causes of regional differences in the economic consequences of reverse migration. The findings with respect to differential impacts on different social strata sensitize us to the importance of this factor, and raise research questions about the extent and significance of mobility from blue collar strata to white

collar-service employment opportunities in the expanding tertiary sector found in many reverse migration regions.

There are also a number of applied implications of this study. To the extent that blue collar migrants create an economic overload in manual labor markets, special attention should be given to retraining programs so that blue collar persons who wish to change from manual to white collar-service occupations can aquire the skills necessary to compete effectively for jobs in the expanding tertiary sector in reverse migration regions. These efforts would benefit both newcomer blue collar migrants (who have the highest unemployment rate) and blue collar long-term residents whose access to manual labor jobs has been restricted by increasing competition from blue collar migrants.

There is also a need for an improved infrastucture to create expanded blue collar employment. This has implications both for rural industrialization and for the development of primary production sectors involving both renewable and nonrenewable natural resources. However, rural industrialization and natural resource based rural economic development should be done in a way that preserves environmental quality and natural amenity values that are an important attracting factor in stimulating reverse migration related economic development in the tertiary sector of rural economies. Schwarzweller (1979: 11), for instance, presents data indicating that natural environment amenity regions that provide outdoor recreation and tourism attractions seem to be growing more rapidly than other rural regions affected by reverse migration. In another component of our research project, Fly (forthcoming) has shown that outdoor recreation and natural environment attractions have played a major role in migration to the study region in Northern Lower Michigan.

Thus, the importance of natural resource based economic development in the primary sector, should be balanced against the importance of the economic development benefits of preseving natural environmental amenity values in the

planning of regional economic development policies and strategies in response to the population turnaround. This dilemma adds a new wrinkle to the long standing debate over the role of natural resources in rural economic development (e.g. Dana, 1918; Dickerman and Butzer, 1975; Drielsma, 1985; Foster, 1941; Kromm, 1972; Wood, 1955; Yoho, 1965), and new dimensions to the conflict between environmental preservation and natural resource exploitation.

Footnotes

1. Representatives of the county assessor offices indicated there were very few renters in the counties of concern. This perception is born out in estimates of the percent of housing units occupied by renters. The US Census of Housing (1890) does not calculate this percentage in its published tables, but from figures on the proportion of owner occupied housing units and the percent of rental vacancies in the US. Census of Housing (Part 24- Michigan, 1980: 15), and estimates of seasonal residents from the absentee owner sub sample in this study, a calculated estimate of 10.7% of the total population were found to be renters.

2. The sample for Fly's companion study was from the same region except that Kalkaska county was eliminated because of a higher proportion of employment related growth because of the oil drilling industry there. In his study only the highest growth townships from the study region were sampled. The studies were conducted during the same year using the same method of sampling, similar mailed questionnaire formats, the same operational definition of newcomers and long-term residents, and the same operational definition of the white collar-service / blue collar dichotomous variable.

References

Beale, C.L.

1975 The Revival of Population Growth in Non-Metropolitan America. Washington D.C.: Economic Research Service, U.S. Dept. of Agriculture.

Blahna, D.

Forth-coming "Turnaround migration and environmental conflict in Norther Lower Michigan: The implications of social change for regional natural resource management." Ann Arbor, MI: University of Michigan, School of Natural Resources, unpublished Ph.D. dissertation.

Bowles, G.K.

1978 "Contributions of recent metro/nonmetro migrants to the nonmetro population." Agricultural Economics Research. 30(October): 15-22.

Brown, D.L. and J.M. Wardwell (Eds.)

1980 New Directions in Urban-Rural Migration: The Population Turnaround. New York: Academic Press.

Campbell, R.R., G.T. Stangler, G.H. Daily, and R. McNamara

1976 Population Change, Migration and Displacement Along the McClellan-Kerr Arkansaw River Navigation Project. Ft. Belvoir, Virginia: EIS United States Army Engineer Institute for Water Resources.

Campbell, R.R. and E. Swearingen

1983 "A holistic model of the migration from metropolitan to non-metropolitan areas." Paper presented at the annual meetings of the Rural Sociological Society, Lexington, KY, August.

Carpenter, E.H.

1977 "The potential for population dispersal: A closer look at residential locational preferences." Rural Sociology 42(Fall): 352-370.

Clawson, M.

1976 "Economic implications of the recent population shift toward rural areas." American Journal of Agricultural Economics. 58(December): 963-966.

Dailey, G.H. Jr. and R. Campbell

1980 "The Ozark-Ouachita Uplands: growth and consequences." Pp. 233-265 in D.L. Brown and J.M. Wardwell (eds.), New Directions in Urban-Rural Migration: The Population Turnaround in Rural America. New York: Academic Press.

Dana, S.T.

1918 "Forestry and Community Development." U.S. Dept. of Agriculture, Bulletin No. 638.

Davis, J.

1976 "Making it, Ron Garfinkle, potter." Belfast, Maine: The Republican Journal. 8(January).

DeJong, G.F. and C.R. Humphrey

1976 "Selected characteristics of metropolitan-to-nonmetropolitan area migrants." Rural Sociology. 41(Winter): 526-38.

DeLind, L.B.

1978 "Leisureville: A developmental study of behavior and social organi-

zation within a rural U.S. county." East Lansing: Michigan State University, unpublished Ph.D. dissertation.

Dickerman, A.R. and S. Butzer

1975 "The potential of timber management to affect regional growth and stability." Journal of Forestry. 73(May): 268-269.

Dillman, D.A.

1979 "Residential preferences, quality of life, and the population turnaround." American Journal of Agricultural Economics." 61(December): 960-966.

Drielsma, H.

1985 "The influence of forest-based industries on rural communities." New Haven, CT: Yale University, School of Forestry and Environmental Studies, unpublished Ph.D. dissertation.

Fly, M.

Forthcoming "Tourism and nature: the basis for growth in Northern Lower Michigan." Ann Arbor, MI: University of Michigan, School of Natural Resources, unpublished Ph.D. disseration.

Foster, E.

1941 "A plan to help stabilize the rural economy by the wise use of forest resources." Journal of Forestry. 39(September): 793-97.

Goldstein, S.

1976 "Facets of redistribution: research challenges and opportunities." Demography. 13(November): 423-434.

Hackett, B. and S. Schwartz

1980 "Energy conservation and rural alternative lifestyles." Social Problems. 28(December): 165-178.

Howie, M.R.

1983 "Reverse or counterstream migration in South Carolina." Paper presented at the annual meetings of the Rural Sociological Society, Lexington, KY, August.

Kromm, D.E.

1972 "Limitations on the role of forestry in regional economic development." Journal of Forestry. 70(October): 630-33.

Lichter, D.T., T.B. Heaton, and G.V. Fuguitt

1979 "Trends in the selectivity of migration between metropolitan and nonmetropolitan areas: 1955-1975." Rural Sociology. 44(Winter): 645-666.

McCarthy, K.F. and P.A. Morrison

1979 "The changing demographic and economic structure of nonmetropolitan areas in the United States." Santa Monica, Ca.: The Rand Corporation, R-2399-EDA.

Morrison, P.A. and K.F. McCarthy

1982 "Demographic forces reshaping small communities in the 1980's." Santa Monica, Ca.: The Rand Corporation.

Oppenheim, A.N.

1966 Questionnaire Design and Attitude Measurement. New York: Basic Books.

Ploch, L.A.

1978 "The reversal in migration patterns- some rural development consequences." Rural Sociology. 43(Summer): 293-303.

Poindexter, J.R. and W.B. Clifford

1983 "Components of sustenance organization and nonmetropolitan population change: the 1970's." Rural Sociology. 48(Fall): 421-435.

Price, M.L. and D.C. Clay

1980 "Structural disturbances in rural communities: some repurcussions of the migration turnaround in Michigan." Rural Sociology. 45(Winter): 591-607.

Schwarzweller, H.K.

1979 "Migration and the changing rural scene." Rural Sociology. 44(Spring): 7-23.

Seninger, S.F. and T.M. Smeeding

1981 "Poverty: A human resource-income maintenence perspective." Pp. 382-436 in A.H. Hawley and S.H. Mazie (eds.), Nonmetropolitan America in Transition. Chapel Hill: University of North Carolina Press.

Solfranko, A.

1980 "Job seekers and amenity migrants from metropolitan areas: differences and impact potential." Pp. 139-151 in A.J. Solfranko and D.J. Williams (eds.), Rebirth of Rural America: Rural Migration in the Midwest. Ames, Iowa: Iowa State University, North Central Regional Center for Rural Development.

Solfranko, A.J. and J.D. Williams

1980 "Mobility expectations of recent migrants." Pp. 121-134 in A.J.

Solfranko and J.D. Williams (eds.), Rebirth of Rural America: Rural Migration in the Midwest. Ames, Iowa: Iowa State University, North Central Regional Center for Rural Development.

Swanson, Linda L.

1984 "Moving to the country in search of a better life." Rural Development Perspectives. 1(October): 14-19.

Voss, P.R. and G.V. Fuguitt

1979 "Turnaround migration in the Upper Great Lakes Region." Madison, Wisconsin: Applied Population Laboratory, Population Series 70-12.

Wardwell, J.M.

1977 "Equilibrium and change in nonmetropolitan growth." Rural Sociology. 42(Summer): 156-179.

Wardwell, J.M. and C.J. Gilchrist

1980 "Employment deconcentration in the nonmetropolitan migration turnaround." Demography. 17(May): 145-158.

Wardwell, J.M. and C. Rowe

1983 "Economic recession and the satisfaction of nonmetropolitan migrants." Paper presented at the annual meetings of the Rural Sociological Society, Lexington, KY, August.

Wellman, J.D. and R.W. Marans

Undated "Social conflict associated with turnaround migration: evidence from Northern Lower Michigan." Blacksburg, VA.: Department of Forestry, Virginia Tech., unpublished paper.

White, S.E.

1983 "Return migration to Appalachian Kentucky: An atypical case of non-metropolitan migration reversal." Rural Sociology. 48(Fall): 471-491.

Wood, B.G.

1955 "The role of public forests in the economic development of the Pacific coast region." Pp. 187-189 in Proceedings: Society of American Foresters Meetings, Portland, Oregon.

Yoho, J.G.

1965 "The responsibility of forestry in depressed areas." Journal of Forestry. 63(July): 508-512.

Zuiches, J.J. and M. Price

1980 "Industrial development and labor force migration: employment dimensions of the population turnaround in Michigan." Pp. 333-359 in D. Brown and J. Wardwell (eds.), New Dimensions in Urban-Rural Migration: The Population Turnaround in Rural America. New York: Academic Press.

Table 1

Changes in Population and Unemployment by County
in Relation to Statewide Averages

County	Population Change 1970-80	Unemployment 1970	Unemployment 1980	Unemployment Change 1970-80
Crawford	+46%	6.3%	25.3%	+19.0%
Gladwin	+48%	9.4%	28.7%	+19.3%
Kalkaska	+104%	11.3%	23.8%	+12.5%
Missaukee	+41%	7.8%	24.0%	+16.2%
Montmorency	+43%	6.4%	29.9%	+23.5%
Ogemaw	+38%	9.8%	25.9%	+16.1%
Oscoda	+45%	12.5%	23.5%	+11.0%
Ostego	+44%	16.1%	19.6%	+ 3.5%
Roscommon	+66%	7.7%	26.0%	+18.3%
Unweighted Average	+52.8%	9.7%	25.1%	+15.5%
State of Michigan	+ 4%	5.9%	10.7%	+ 4.8%

Source: US Census of the Population, 1970, 1980.

Table 2

Relationship between Newcomer/Long-term Resident and Selected Socio-economic Characteristics

SES Characteristics	X^2	d.f.	Cramer's V	Significance
Age	15.9	6	.21	NS
Education	9.4	6	.16	NS
Income	11.9	7	.19	NS
Occupation	15.9	9	.22	NS
Employment Status	16.4	5	.21	$P < .01$

Table 3

Newcomer/Longterm Resident by Occupation

	Newcomer		Longterm Resident	
Occupation	N	Percent	N	Percent
Professional-Tech.	32	17.7%	16	11.3%
Manager-Offical	39	21.5%	32	22.7%
Clerical	6	3.3%	10	7.1%
Sales	9	5.0%	11	7.8%
Craftsman-Foreman	48	26.5%	22	15.6%
Operative	27	14.9%	22	15.6%
Service	6	3.3%	9	6.4%
Farm	1	.6%	5	3.5%
Laborer	11	6.1%	12	8.5%
Housewife	2	1.1%	2	1.4%
Total	141	100.0%	181	100.0%

X^2= 15.9%, d.f.= 9, Cramer's V= .22, NS.

Table 4

Newcomer/Longterm Resident by Employment Status

	Newcomer		Long-term Resident	
Employment Status	N	Percent	N	Percent
Employed (by others)	61	30.0%	62	39.7%
Self Employed	29	14.3%	36	23.1%
Unemployed	19	9.4%	6	3.8%
Retired	90	44.3%	46	29.5%
Homemaker	3	1.5%	4	2.6%
Other	1	0.5%	2	1.3%
Total	203	100.0%	156	100.0%

X^2= 16.4, d.f.= 5, Cramer's V= .21, P < .01.

Table 5

Unemployment Rate by Occupation

Occupation	Total N in Sample	Percent Unemployed
Professional-Tech.	48	2.1%
Manager-Offical	72	1.4%
Clerical	16	6.3%
Sales	20	0.0%
Craftsman-Foreman	71	14.1%
Operative	50	10.0%
Service	17	0.0%
Farm	6	0.0%
Laborer	22	18.2%

$X^2 = 262$, d.f.= 45, Cramer's V= .4, $P < .001$.